

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GalNAc α -2,6-sialyltransferase V/ST6GALNAC5 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) ST6GALNAC4 or rhST6GALNAC6 is observed.
Source	Monoclonal Mouse IgG _{2A} Clone # 719508
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human SGalNAc α -2,6-sialyltransferase V/ST6GALNAC5 Gly30-Phe336 Accession # Q9BVH7
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

Immunocytochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Gangliosides are acidic glycosphingolipids that contain one or more sialic acid residues (1). They are abundant in the nervous system, where they play crucial modulatory roles in cellular recognition, interaction, adhesion, and signal transduction, particularly during early developmental stages. The expression of gangliosides in the nervous system is developmentally regulated through various sialyltransferases (2). ST6GALNAC5 is a sialyltransferase involved in the biosynthesis of ganglioside GD1a (NeuAc α 2,3Gal β 1,3GalNAc β 1,4(NeuAc α 2,3)Gal β 1,4Glc β 1-Cer) from GM1b (NeuAc α 2,3Gal β 1,3GalNAc β 1,4Gal β 1,4Glc β 1-Cer), and its expression is restricted to the brain (3, 4). ST6GALNAC5 has been identified as a key player in the metastasis of breast cancer cells to the brain by potentially enabling the cancer cells to cross the blood-brain barrier (5, 6). The recombinant ST6GALNAC5 was active on fetuin from fetal calf serum when assayed using a phosphatase-coupled method (7) suggesting the substrate specificity of ST6GALNAC5 may require further characterization.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.